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DISCUSSION

COLLEGE TEACHERS OF EDUCATION

ABSTRACTS OF DISCUSSIONS OF PAPERS AT THE PHILADELPHIA MEETING

ON PSYCHOLOGICAL CHARACTERISTICS OF THE INTERMEDIATE GRADES (I)¹

The various viewpoints so far expressed admirably supplement each other. Dr. Judd has demonstrated the existence of periods of least development, and located them about the fourth grade in many school systems. The last speaker calls attention to ample evidence that the grades in which these "nodes" occur vary with locality, and insists that such variation makes valid conclusions impossible. Personally, I believe that the most fundamental conclusion can be based upon the very fact of variation. That is, since the "nodes" occur at varying ages, responsibility is administrative rather than subjective and lies with the school system rather than in some unavoidable subjective condition. Both Dr. Judd and Professor Bagley assume this when they propose their conflicting remedies—*less* drill work in the fourth grade and *more* drill work in the fourth grade. My own belief is that the "node" is not wholly avoidable, because, now and again, accumulating knowledge reaches a point where its organization must be made familiar by repetition, and where the more complex activities that become essential must be transformed into certain habits. I agree with Professor Bagley that this means more drill rather than less, or if not more drill, more efficient drill on essential relationships, where usefulness is due to definiteness and increasing complexity.

Since a small part of each school day is adequate for essential drill, and only a small part can be made effective through drill, Dr. Judd is probably right in his insistence that the fourth grade devotes too much time to drill, to the exclusion of the more many-sided phases of school work in which fourth-graders are naturally interested. Drill and many-sidedness are not mutually exclusive, but supplementary.

(AFTER DR. JUDD'S SUMMING UP)

I cannot refrain from a final word of protest against the assumption that drill is repressive and wasteful, and that children's interests should be determining for the course of study. While innate tendencies point

¹ Such numbers refer to pages in the 1913 *Yearbook* of the College Teachers of Education, published by The University of Chicago Press.

the way to the line of least resistance, the relationships and the habits essential to the most useful activity at each stage of development must at times be developed in the face of natural tendency. Self-activity is not always the readiest means to education. It is its essential end in the realization of which mechanical memorizing, drill, and routine are always essential factors. If we have not reacted too far from the old-time verbatim instruction, we have been getting too far away from the drill essential at each stage of development to the certain mastery of the definite relationships and increasingly complex systems of ideas and habits on which self-progress and independent activity depend.—A. D. YOCUM, *University of Pennsylvania*.

ON A STUDY OF ASSOCIATION IN CHILDREN OF THE ELEMENTARY SCHOOL BY
E. E. JONES, INDIANA UNIVERSITY (16)

The study is entitled "Association in the Elementary School" but it would be more logical to call it "An Additional Series of Tests for Elementary-School Pupils." Ten tests are described and these involve motor, perceptual, and judgment processes quite as much as association. Only one of these tests, the third, which deals with the writing of opposites, can be classified strictly under the head of association. The first, fifth, and tenth tests are essentially motor but only the tenth and perhaps the first appear to be so recognized; the second concerns perceptual rapidity; the fourth involves the factor of logical memory; and the sixth, seventh, eighth, and ninth deal respectively with addition, subtraction, multiplication, and division—processes that give but little insight into associational peculiarities. But all these tests do have the merit of allowing objective grading.

It is in the record of the results obtained, where most would naturally be expected, that the study is most disappointing. We are told that "there is a positive correlation throughout between the efficiency of the pupil in the performance of school tasks and the score made in the association tests," but the amount of correlation is not given. Again, without giving us the figures, we are told that "as we advance in the grades the medians of the association records of all the pupils tested in each grade show a steady increase by almost a constant quantity for each grade." The records of a feeble-minded boy found in the fifth grade are given, and with the exception of being told that these records are below the median of the records of the third graders, we are given no basis of comparison. The Binet scale was applied to a number of exceptional cases and the results were found to agree closely with those

found by the association tests, but no figures showing this agreement are given.

The fact that these simple tests appear to give a measuring scale for native intelligence and psychological age is certainly suggestive. The chief desiderata still to be worked for in perfecting mental tests, it seems to me, are simplicity, objective grading, and appeal to the basal mental powers and functions. These should include the emotional as well as the intellectual reactions. We need also to distinguish between tests upon native ability and psychological age, and tests upon typical school achievements, or pedagogical age. We ought to have measuring scales for the typical geographical, historical, arithmetical, and other conceptions and performances of the third-grade child, the fourth-grade child, and so on. The Courtis tests perform this service in a measure for arithmetic, but in the other subjects we have not even made a beginning in this direction.

The fact that there is apparently no correlation between the quality of the sense organs and mental performance came as a surprise to Professor Jones and his co-workers. It came as a surprise to me also about seven years ago, when making my study on *The Field of Distinct Vision*. I found, for example, that there is practically no correlation between the horizontal extent of acute vision and reading rate, between visual acuity and reading rate, between sensory defect and reading rate, and between the horizontal extent of vision and the A test. Barring, of course, cases of extreme sensory defect, the cause of the difference in reading rate and other perceptive functions must be looked for on the central, and not on the peripheral, end.

In conclusion Professor Jones suggests that we need two innovations in our school systems—the psycho-clinician and the scientific school administrator. No doubt we need these persons and they are coming, but could we not also make good use in all larger school systems of a specialist who might be called director of research? Every large school system should be adding its quota to educational science through carefully directed research. This would not only give permanent contributions to educational science, but would also immediately enliven the school work. Various methods of instruction, courses of study, types of management and organization, and so on, might be tested abreast in various parts of the city. While suggestions and initiative might well come from many sources, for results to be obtained the experiments would have to be carried out under the direction of one competent and well-trained scientist.—W. C. RUEDIGER, *George Washington University*.

ON INCIDENTAL INSTRUCTION BY J. L. MERIAM, UNIVERSITY OF MISSOURI (23)

The values of instruction depend upon two things—the nature of what the pupil learns and the amount of time and energy consumed by the learner in the process. What may be learned or acquired by the pupil is either automatic and habitual responses or conscious and rational responses. The habitual responses are of value, but relatively they are of much lower value and much less in amount than the conscious, rational responses. The latter alone provide for the analysis of a situation, for taking the initiative, for meeting new situations. Incidental instruction will result in more of that kind of knowledge which makes progress possible.

Then the whole problem of method may be considered from the standpoint of repetition. Repetition is necessary in school where the appeal to the instinctive forces is more difficult to make, but the amount of time and energy consumed in the learning may be so great, owing to repetition, that the learning itself is a net loss to the pupil. The problem of instruction is to secure the learning with the minimum of repetition, the minimum of drill. Repetition and drill reduce motive, without which there can be no economic learning. By the choice of rich material for study and the incidental learning of the form, not only will the acquisitions be more valuable but the process will be more economical.—J. N. DEAHL, *West Virginia University*.

ON A NEW METHOD IN THE HISTORY OF EDUCATION BY H. H. HORNE, NEW YORK UNIVERSITY (31)

Any attempt at solving the problem of the better functioning of the history of education demands consideration. How far Professor Horne's scheme is new and how far it meets the difficulties are the questions before us. For the immature student a textbook developing the several topics would seem a necessity. Whether such a book could avoid undue disconnectedness without too much repetition remains to be seen. On the other hand, to use the proposed plan with students already at home in the subject is the common procedure. Thus, however we may take it, a substantial contribution seems improbable.

In addition to more obvious ways, the history of education should function by aiding the student to analyze, for more adequate criticism, the complex body of contemporaneous education. To question what is customary—a matter of the utmost importance—demands as *sine qua non* a novel point of view. The history of education affords such novel viewpoints, particularly in the relatively simple historic systems

made by emphasizing now one, now another, of the several elements found in our present complex system.—WILLIAM H. KILPATRICK, *Columbia University*.

Ten years ago I came to the conclusion that the course I was giving in the history of education was of little professional value. Treated as a review of educational opinion and practice it was superficial and consequently irksome and negative in results. Treated as the problem of determining the deepest causes of educational ideals and institutions, it became a history of civilization and thus became chiefly cultural and at the same time cumbrous beyond all control. Accordingly I attempted to organize it from an entirely new standpoint, viz., that which views the teacher as facing two radically diverse problems: the one intellectual—the mastery of the psychology of the child and of the principles of method; the other dynamic—the problem of adjustment to the social forces which have created the school and determined its structure, and which sustain all its processes and give them their energy of persistence and direction. Once my students were made to understand that from the moment of their entry into the schoolroom they would be confronted, indeed encompassed, by forces so persistent and dominant that their attempts at betterment might be obstructed or completely thwarted; that these forces were not merely local, temporary, and incidental, but structural, universal, and gaining their astonishing momentum from sources far back in history; that, indeed, there was absolutely no way of comprehending or measuring them or adjusting oneself intelligently to them except by a resort to history—once these things were comprehended, I say, there was no lack of interest. It only remained to reverse the order of presentation—to put first the legislation, the curriculum, the methods, the ideals, which were the product of historic forces, and literally drive the students to history as the only solution of their problems. This method made history really function in professional equipment.—GEORGE M. FORBES, *Rochester University*.

Professor Horne's paper, in my opinion, points the way for making the history of education practical for undergraduates. As it has been taught, it is well adapted to the needs of graduate students doing advanced work, but not to the needs of undergraduates. The pedagogy which can be taught in the limited time accorded to it in undergraduate courses should be confined to the most practical aspects of the subject. What the undergraduate needs is such training as will enable him to teach skilfully and manage effectively a school or a class. The

main emphasis in undergraduate study should therefore be placed on methods of teaching subjects which he is likely to teach. He ought to be taught the elements of educational psychology in order that he may know the immediate reasons for method; he ought to be taught school¹ and class management. These are the phases of pedagogy which will enable him to teach school, and, yet, these are the very aspects which the academic members of the college faculty are least inclined to accept for credit toward a degree; they are said not to have a "culture value." To conciliate their colleagues in the academic departments, professors of pedagogy in many colleges have slighted these subjects and have unduly emphasized the history of education, the philosophy of education, principles of education, and educational psychology. The result is that, as a rule, graduates of colleges who take courses in pedagogy often do not show in their teaching any effects of their professional training. The value of such training at present is largely taken on faith by superintendents of schools and high-school principals. Unless the colleges give more practical training, the different states will organize state normal schools of college grade for the training of secondary-school teachers, and professorships of pedagogy in the colleges will not be permanent. We are at the parting of the ways in this matter. A number of states, including New York, Michigan, Iowa, Colorado, Missouri, and South Carolina, have already established normal schools of this character. The question of establishing such a school in Illinois has been agitated for several years. The permanency of professorships of pedagogy in colleges will not depend upon what academic colleagues think of the value of their work, but what superintendents of schools and principals of secondary schools who employ their graduates think of it.

We do not distinguish sharply enough between courses in pedagogy for graduate students and courses for undergraduates. The undergraduate has not the preparation required for the scholarly study of the history of education. As a rule, he knows little of the history of philosophy, often not enough of political history, and nothing of ecclesiastical history, all of which are necessary to interpret some of the periods of the history of education. As a rule, his knowledge of psychology and of the biological sciences is too limited to enable him to pursue with much profit a scholarly course in principles of education. Such work should be reserved for the graduate school. There are only two phases of the history of education which, it seems to me, are adapted to the needs of the undergraduate: one is the history of the theories of educational reformers which will give him the genesis of modern educational

ideals; the other is a history of method in connection with the instruction in methods of teaching. Professor Horne's plan, it seems to me, suggests the most effective way of treating these two phases of the history of education in undergraduate work.—THOMAS M. BALLIET, *New York University*.

ON AN EXPERIMENT WITH THE COURTIS ARITHMETIC TESTS BY E. E. RALL,
UNIVERSITY OF TENNESSEE (36)

Extended use of the Courtis tests has convinced me that they are the most convenient and reliable means we have for determining arithmetical abilities. I believe that they are a valuable aid to the teacher in indicating the individual needs of pupils. At the same time the following points call for experimental investigation: (1) The Courtis tests are all speed tests. The pupils work under pressure. In perhaps no other situation is such a demand made upon them. Are the results of such tests an adequate measure of the normal arithmetical abilities of pupils? Has the constant strain for speed any disturbing effect upon the results? (2) Such a speed test may be very confusing for the pupil the first time. To what extent does adaptation to the conditions of the test change the rating of pupils? This has been pretty definitely determined by Otis and Davidson for eighth-grade pupils in the addition test, but each test should be worked through from this point of view. (3) If precisely the same reasoning tests are used at intervals of four weeks, will not memory soon prove a disturbing factor in the results? In the present experiment the reasoning problems were changed for all but ten pupils. It would be interesting to know whether there was any appreciable difference between the scores of these and of the other pupils.—J. CARLETON BELL, *University of Texas*.

ON THE PLACING AND PROMOTION OF TEACHERS

It was the speaker's conviction that certain unhappy conditions attaching to the teaching profession are in large part to be charged to defective methods in placing and promoting teachers. Most prominent among these are: insecurity of tenure; itineracy; lack of vital relationship between teachers and community; unprofessional conduct on the part of teachers; the failure of teachers to grow in grace and power; time-serving; insufficient salary. To minimize such evils is serious and pertinent work for educators.

Three main lines of activity in the way of improvement were indicated as fairly obvious, all three to be undertaken through interinstitutional and interstate co-operation: (1) careful determination and state-

ment of facts, causes and effects of the evils enumerated, the relation to these evils of teachers' agencies, the various forces now effectively at work to improve such conditions; (2) the devising and perfecting of a nation-wide scheme, or schemes, of placing and promoting teachers—a scheme which will to some extent ameliorate bad conditions through saving the teacher's soul and money; (3) a nation-wide discussion of the ethics involved in seeking, accepting, or leaving a position, and in seeking, employing, promoting, or discharging a teacher. It would seem that reasonable educators, teachers' agencies, and citizens in general, after full discussion, would agree to at least the propositions and implication of such a code, for example, as the following:

1. Poor teachers should not receive positions as long as there are better teachers without them.
2. The more expert teachers should be in the more difficult positions.
3. The more difficult positions should be relatively the better paid ones.
4. The individual genius of the teacher should fit the peculiar requirements of the position.
5. Teacher and position should fit each other in such a way as to conserve the ethical, moral, and professional spirit of the teacher, and especially of the new teacher.
6. There should be promotion, but for meritorious service only.
7. Change of position should be subject to the satisfaction, always, of at least three requirements: (a) the good of the school the teacher is leaving; (b) the good of the school to which the teacher goes; (c) the professional good of the teacher making the change.
8. Personal and political "pull" or influence must be eliminated from all appointments; merit and adaptation are the only legitimate considerations.
9. Teachers of equivalent preparation should be kept in active competition with each other.
10. The method of bringing teacher and position together should be such as to exert an influence upward on salaries and for security of tenure; at the worst it should never tend to work against these ends.
11. "To whom it may concern" or similar testimonials should never be written; and no teacher should ever be the custodian of these or any other testimonials descriptive of himself.
12. Superintendents and others in authority over teachers should not get rid of undesirables by writing glowing testimonials in their behalf.—FRANK E. THOMPSON, *University of Colorado*.